

Zachary Pyun

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EDUCATION

Texas A&M University

Bachelor of Science in Computer Science, Minor in Mathematics

Expected Graduation, December 2026

Cumulative GPA: 3.95

- **Coursework:** Foundations of Software Engineering, Artificial Intelligence, Data Structures & Algorithms, Design & Analysis of Algorithms, Program Design & Concepts, Calculus 1-3, Linear Algebra, and Statistics

The University of North Texas

High School Dual Enrollment Student

August 2021 - May 2023

Cumulative GPA: 3.875

- Selected as one of 40 students district wide to participate in the 2 year “UNT NOW!” dual enrolment program

TECHNICAL SKILLS

Languages: Python, Java, C++, Typescript, Javascript, HTML, CSS, SQL

Frameworks/Developer Tools: React, Node.js, FastAPI, PostgreSQL, SQLAlchemy, VS Code, GitHub

Areas: Software Engineering, Full Stack Development, Web Development, Artificial Intelligence, Data Science

WORK EXPERIENCE

Eagle Materials

Data Science Intern

June 2025 - September 2025

Dallas, TX

- Technologies: Python, SQL, Pandas, DuckDB, Oracle Database, Dynamics, VS Code, Git
- Built a data quality model to detect/correct errors (missing values, duplicates, invalid ranges) across 25+ production tables, reducing validation time 65% and improving pipeline reliability.
- Automated migration from Dynamics to Oracle with Python ETL scripts (schema validation, error handling), cutting 15 hrs/week of manual work and ensuring 95%+ migration accuracy
- Wrote complex SQL queries and reporting pipelines in Oracle to deliver deep-dive analytics for executives, cutting manual reporting time by 40%, enabling faster decisions.

Hollman Inc.

Project Engineering Intern

May 2024 - August 2024

Irving, TX

- Technologies: Python, Jupyter Notebook, Excel, Solidworks, VBA, Syteline, Salesforce
- Developed an engineering tool that generated 3D Solidworks models + cost estimates in <2 min, streamlining quoting for 50+ custom locker orders.
- Built a hinge-type calculator that mapped door specs to inventory SKUs, eliminating a design–production bottleneck and reducing order turnaround by ~20%
- Automated reporting in Excel/VBA to track 200+ product SKUs, improving cross-team visibility into material usage and availability

PROJECTS

Sports Card Collection Management Application | *FastAPI, PostgreSQL, React, TypeScript, Python*

- Designed a full-stack CRUD app to manage card collections with advanced search, image uploads, and automated eBay listings, supporting 1,000+ entries.
- Built a REST API with FastAPI + SQLAlchemy and PostgreSQL; engineered a responsive React frontend for visualization and portfolio tracking.
- Integrated portfolio valuation that updates in real time with market prices, helping users track collection worth with 95% accuracy.

Machine Learning Digit Classification | *Python, NumPy, Neural Networks, Deep Learning*

- Implemented perceptron + multi-layer neural networks for binary classification, regression, and digit recognition (92% accuracy on MNIST subset).
- Coded gradient descent, backpropagation, and ReLU activation manually to deepen understanding of model training.
- Benchmarked different architectures (perceptron, deep NN, RNN) and documented tradeoffs, demonstrating 3× faster training with shallow models vs. 15% higher accuracy using deep networks.